

Prevention and screening of colorectal cancer

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Detection and follow-up of adenomas

- Screening is justified on the basis of the assumption that removing adenomatous polyps from symptomless individuals reduces the incidence of and mortality from colorectal cancer
- The prevalence of adenomas in unselected autopsy series is as high as 30%.

Symptomatic patients

- If a polyp is detected the whole colon should be examined and all polyps removed.
- If colonography suggests a polyp not exceeding 5 mm in diameter in a patient above 75 years of age there is no absolute indication for colonoscopy and polyp removal.
- Suspicion of a polyp in a young patient or a polyp exceeding 5 mm in diameter is always an indication for colonoscopy.

Asymptomatic persons

- The use of colonoscopy for screening of asymptomatic individuals is indicated only in cases with marked familial susceptibility to cancer, or if an adenoma has earlier been removed endoscopically.
- Follow-up after the initial investigations is not indicated in persons with a single small tubular adenoma in the rectum, or in patients above 75 years of age.
- Individuals with a history of one large adenoma or several adenomas of any type should

undergo screening colonoscopy at 3 - 5-year intervals.

Preventive measures

- Although diet is considered to be a major environmental cause of colorectal cancer there is insufficient evidence to recommend dietary changes for prevention. On the other hand, the diet suggested for prevention, with a reduced content of fat and energy along with an increased content of fruit and vegetable fibre, is in accordance with recommendations for the treatment and prevention of other diseases.

Population-based screening

- The results of large trials involving screening for faecal occult blood indicate a reduction in mortality from colorectal cancer (Level of Evidence = A; Evidence Summary available on the EBM Web site), but such screening results in colonoscopy being performed on a large proportion of the screened population. The cost-effectiveness of screening is controversial. Only about 50% of those invited can be expected to attend screening (Level of Evidence = B; Evidence Summary available on the EBM Web site).

Screening relatives of cancer patients

- Always obtain a thorough family history from a patient with colorectal cancer. If there are cases of colorectal cancer or other adenocarcinomas (e.g. of the breast, uterus or ovaries) in the family consider the possibility of familial cancer and screening of the relatives (Level of Evidence = C; Evidence Summary available on the EBM Web site).

Examining a symptomatic patient

- Patients with colorectal cancer often present with non-specific gastrointestinal problems. Because both the sensitivity and specificity of faecal occult blood are rather poor, a negative result does not exclude colorectal cancer in a symptomatic patient.

Related evidence

- The presence of neoplasms in the distal colon increases the risk of advanced neoplasia in the proximal colon, but about 50% of patients with proximal advanced neoplasms have no distal polyps (Level of Evidence = A; Evidence Summary available on the EBM Web site).
- The potential benefits of dietary fibre in the prevention of colorectal adenomas and carcinomas are not evident in randomized controlled trials of 2 to 4 years follow up (Level of Evidence = C; Evidence Summary available on the EBM Web site).

Bibliography

1. Towler BP, Irwig L, Glasziou P, Weller D, Kewenter J. Screening for colorectal cancer using the

faecal occult blood test, Hemoccult. The Cochrane Database of Systematic Reviews, Cochrane Library number: CD001216. In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software. Updated frequently.

2. Vernon SW. Participation in colorectal cancer screening: a review. J Nat Canc Instit 1997;89:1406-1422
3. The Database of Abstracts of Reviews of Effectiveness (University of York), Database no.: DARE-971223. In: The Cochrane Library, Issue 4, 1999. Oxford: Update Software
4. Brewer DA, Fung CL, Chapuis PH, Bokey EL. Should relatives of patients with colorectal cancer be screened? A critical review of the literature. Diseases of Colon and Rectum 1994;37:1328-1338
5. The Database of Abstracts of Reviews of Effectiveness (University of York), Database no.: DARE-954069. In: The Cochrane Library, Issue 1, 2001. Oxford: Update Software
6. Lieberman DA, Weiss DG, Bond JH, Ahnen DJ, Garewal H, Chejfec G for the Veterans Affairs Cooperative Study Group. Use of colonoscopy to screen asymptomatic adults for colorectal cancer. N Engl J Med 2000;343:162-168
7. Imperiale T, Wagner DR, Lin CY, Larkin GN, Rogge JD, Ransohoff DF. Risk of advanced proximal neoplasms in asymptomatic adults according to the distal colorectal findings. N Engl J Med 2000;343:169-174
8. Asano T, McLeod RS. Dietary fibre for the prevention of colorectal adenomas and carcinomas. The Cochrane Database of Systematic Reviews, Cochrane Library number: CD003430. In: The Cochrane Library, Issue 2, 2002. Oxford: Update Software.

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